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BUTTON'S COFFEE-HOUSE.

ROBERT BURTON, in the *Anatomy of Melancholy*, alludes to the social life of the Turks in their coffee-houses, which, he says, 'much resemble our taverns.' This was written in 1621, some thirty years before the opening of the first coffee-house in London. From the date of the latter event the use of the berry became increasingly popular, and coffee-houses were multiplied to an astonishing degree. The taverns were superseded to some extent as social resorts by the new establishments, and the features of Turkish life alluded to by Burton were reproduced in a modified form in the London coffee-houses. In many respects these popular institutions resembled the modern clubs. People of similar occupations and of like tastes naturally gravitated in their hours of leisure and recreation to common social centres.

Coffee-houses were literary, professional, commercial, or merely fashionable, according to the character of the bulk of their regular customers. But in one important respect they differed for many years from the clubs of the present day. Until the early years of the eighteenth century, none of the coffee-houses were political, or perhaps it would be more correct to say that none were devoted to the interests of, or used chiefly by, the adherents of any political party. Button's was the first to be started chiefly from political motives, and to be regarded and supported as the headquarters and social meeting-place of the members of a party.

In the later years of Queen Anne's reign, Button's was looked upon as the centre of Whiggism; but to us its literary associations are of more interest than its politics. In virtue of these associations it may fairly be regarded as the legitimate successor of the famous Will's. This celebrated coffee-house, which was situated on the north side of Russell Street, Covent Garden, had for many years, under Dryden's presidency, been the daily resort of wits and authors of all kinds and degrees. After Dryden's death in 1700, its reputation began to decline. It was still used

by Congreve, Addison, Wycherley, the young but precocious Pope, and many other literary men of lesser note; but the tone of the conversation and the character of many of its frequenters showed signs of deterioration, and gambling to a large extent took the place of literature and the drama as the leading attraction of the house. This alteration in the character of Will's, as well as the growing acerbity of political discussion and the increasing bitterness of party feeling, led Addison to feel the desirability of establishing a coffee-house where he and his fellow-Whigs could discuss not only literary topics but political matters in a friendly and harmonious way.

With these objects in view, in 1712 he set up an old servant of his own, Daniel Button, in a house in Russell Street, nearly opposite Will's, but nearer Covent Garden, and there established himself as the recognised head not only of the Whig essayists and men of letters, but of the literary world at large. Addison's supremacy at Button's was as undoubted as Dryden's had formerly been at Will's. Pope in the bitter portrait of Atticus that he drew some years after this date, in revenge for fancied injuries received from Addison, alludes to the circle at the coffee-house, and, parodying a line of his own Prologue to *Cato*, says that should a man—

Like Cato, give his little senate laws,
And sit attentive to his own applause;
While Wits and Templars every sentence raise,
And wonder with a foolish face of praise:
Who but must laugh, if such a man there be?
Who would not weep, if Atticus were he?

The chief members of the 'little senate' were Steele, Budgell, Tickell, Rowe, Ambrose Philips, and Henry Carey. Pope, who had been introduced to Addison by Steele shortly before the establishment of Button's, was also for a considerable period a regular frequenter of the new house, and was on friendly terms with most of the members of this senate that afterwards he so severely satirised. Addison was very constant in his attendance. He and his friends were inseparable. His daily habit was to have one of them

to breakfast with him in St James's Place, to dine out with others, then to visit Button's for some hours, and finally to wind up the day by supping at a tavern or at the coffee-house in the same society. Another very regular member of the company was the industrious playwright Charles Johnson. It was said of him that he was for many years famed for writing a play every season, and for being at Button's every day. His plays brought him in considerable gains, not so much from their merit as from the rage of the town for novelty in dramatic enterprise. Johnson would now be but the shadow of a name were it not for the unenviable distinction that he enjoys, with so many of the smaller literary fry of that period, of figuring in the *Dunciad*.

Steele was a constant attendant at the afternoon meetings of the club. Early in 1713, in one of those innumerable little notes that he was so fond of sending to his wife at every possible opportunity, he asks her to call exactly at five o'clock at Button's for him, and he will go with her to the Park or wherever she may prefer. Towards the end of the same year we have a glimpse of his light-hearted way of meeting all personal attacks on himself. He was then in the thick of political dispute and struggle, and such attacks were plentiful. One December afternoon he hobbled into the coffee-room, supported on crutches and assisted by Mr Button—Steele was a martyr to gout—and was at once consoled with by his assembled friends on account of the calumnious stories that had been circulated about him during his illness. Steele put the subject by, and told them how on his way in a chair to the coffee-house, the people who were jostled by his chairman, seeing his ample figure reposing within, cried out; 'Lazy looby, marry come up; carrying would become him better than being carried!' A word from Steele explaining that he was lame stopped the clamour; so, he added, it would be as easy to answer the other reproaches against him as that of laziness on his journey through the streets.

One of the minor lights of Button's was Ambrose Philips, whose Christian name, manipulated by another member of the 'little senate,' Henry Carey, added the term 'namby-pamby' to our vocabulary. Sheffield, Duke of Buckinghamshire, says of him:

When Philips came forth as starch as a Quaker,
Whose simple profession's a pastoral maker,
Apollo advised him from playhouse to keep,
And pipe to naught else but his dog and his sheep.

Thackeray tersely calls him 'a serious and dreary idyllic Cockney.' His *Pastorals* and those by Pope appeared simultaneously. Philips's eclogues were received with great applause by the circle at Button's, for their author was a strong Whig, and political feeling only too often largely influenced literary judgment. Pope, always sensitive, feeling himself slighted and unfairly treated by the attention paid to his rival, took a singular revenge. He wrote an elaborate criticism on the rival sets of *Pastorals*, in which, while professing and appearing to point out and applaud the merits of Philips, he was yet praising his own poems at his opponent's expense. This criticism he sent anonymously to Steele as the editor of the *Guardian*, which was then appearing in succession to the *Spectator*. Steele was completely imposed upon;

he took the criticism seriously, and it was duly published on April 27, 1713, as No. 40 of his paper.

Addison saw through the joke at once, although the other members of the club were inclined, like Steele, to take the satire as sober earnest. The satirised poet, however, felt the sting of Pope's remarks. Philips was a vain man, a loud talker, and foppish in his dress, with a particular weakness, we are told, for red stockings. Touched in his self-esteem, his tenderest and most vulnerable part, his rage was ungovernable. He is said to have hung up a birch rod at Button's, and to have threatened to chastise the poet of Twickenham therewith should he again appear in the coffee-house. It has been said by biographers of Pope that whether he feared Philips or not, he seems to have discontinued his attendance at Button's about this time, and to have returned to Will's. But this could hardly have been the case, for in June of the following year, 1714, we find Pope writing familiarly to Swift of the gossip concerning him at Button's. The whole story of the birch rod rests upon somewhat slender evidence, and may not improbably be a myth.

Steele, while conducting the *Guardian*, was so constant a visitor at Button's that he made the coffee-house his editorial office. In No. 98 of the paper he announced his intention to erect in Button's a Lion's Head, 'in imitation of those I have described in Venice, through which all the private intelligence of that commonwealth is said to pass.' Correspondents were requested to deposit their communications in the lion's voracious mouth, and the writer promised that whatever the animal swallowed, he, Steele, would digest for the use of the public. About three weeks later readers of the *Guardian* were informed that the Lion's Head had been duly set up, and its appearance is described as being 'in imitation of the antique Egyptian lion, the face of it being compounded out of that of a lion and a wizard. The features are strong and well furrowed. The whiskers are admired by all that have seen them. It is planted on the western side of the coffee-house, holding its paws under the chin upon a box, which contains everything that he swallows. He is indeed a proper emblem of knowledge and action, being all head and paws.'

The Lion's Head remained an ornament of Button's for some time after the *Guardian* had ceased to appear. Below the head was cut a couplet from Martial, which a correspondent of the *Gentleman's Magazine*, many years later, thus translated:

Bring here nice morceaus; be it understood
The lion vindicates his choicest food.

With the closing of Button's the famous head started on its travels. It was first removed to the Shakespeare's Head Tavern in Covent Garden Piazza, and thence to the Bedford Coffee-house, a literary successor to Button's, where it was put to its original use in connection with the *Inspector*, a periodical paper published by the famous Dr Hill. In 1769 it returned to the Shakespeare's Head, where it remained till 1804, when it was sold by auction, and became the property, for the sum of seventeen pounds ten shillings, of Charles Richardson of Richardson's Hotel, who was a great collector of everything relating to the history

of his own parish of St Paul, Covent Garden. After Richardson's death it was sold by his son to the Duke of Bedford, who deposited it at Woburn Abbey, where it still remains.

In 1714, as the reign of Queen Anne drew towards its close, party feeling became increasingly warm, and the country was given up to political ferment and agitation. It was early in this disturbed year that the first breach occurred between Pope and Addison, but it was soon healed, to outward appearance, for in October they met again at Button's, and Pope asked Addison to look over the first two books of the translation of the *Iliad* which he then had in hand. The first volume of this great work was published in June of the following year, 1715, when George I. had been nearly a year on the throne, and the political tumult had to a great extent subsided. Two days after Pope's volume appeared, there was published a translation of the first *Iliad* by Tickell. It came at an inopportune moment, and its publication gave great offence to Pope. Tickell's version was naturally warmly welcomed by his fellow-senators at Button's, and Pope's anger was not lessened by the coffee-house rumour that attributed some of Tickell's work to the hand of Addison. Lintot, Pope's bookseller, wrote to him that the malice and juggle at Button's was the conversation of those who had spare moments from politics. Pope's resentment against the coffee-house circle, and especially against Addison, was further inflamed by a letter that he received a few days later from Gay. The latter reported that everybody was pleased with Pope's work except a few at Button's, and that, according to Steele, Addison had declared Tickell's translation to be the best that ever was in any language. 'I am informed,' continued Gay, 'that at Button's your character is made very free with as to morals, &c.; and Mr Addison says that your translation and Tickell's are both very well done, but that the latter has more of Homer.'

After this, the breach between these two great men was complete and final, and Pope ceased to appear in the coffee-house. There was no open quarrel—the famous character of 'Atticus' was not published till some years after this date—and Pope gave various reasons for ceasing to frequent Mr Button's house. He declared his health to be impaired by the late hours and prolonged sittings to which the members of the 'little senate' were addicted. Writing to James Craggs a day or two after the receipt of Gay's letter, he dwelt upon the increase of party feeling, and the consequent decay of agreeable conversation and the growth of dissension—'nor is it a wonder,' he proceeds, 'that Button's is no longer Button's, when old England is no longer old England, that region of hospitality, society, and good-humour. Party affects us all, even the wits, though they gain as little by politics as they do by their wit.' Thus the poet of Twickenham covered his retreat. In some verses published anonymously the next year, 1716, addressed to 'Mr John Moore, author of the celebrated *Worm Powder*,' he had a thrust at his whilom friends:

Our fate thou only canst adjourn
Some few short years, no more!
Even Button's wits to worms shall turn,
Who maggots were before.

Pope was right when he said that Button's was

no longer Button's. The society that had for so many months held high debate within its walls was breaking up. The Whigs were in power, and their enemies discomfited; Oxford was in the Tower, Bolingbroke had fled to France, and Swift was eating his heart out in his Irish retirement. Addison had joined the government, and necessarily ceased to be so regular as formerly in his attendance at the old meeting-place, Pope had withdrawn, Steele was busy in politics and in the pursuit of various schemes. With the break-up of the club that had so long been the chief attraction of the coffee-house, its importance and fame departed, and for some years little is known of its history. Its once prosperous proprietor, Daniel Button, died about 1730 in poverty, so great, that his funeral was conducted at the expense of the parish. He was buried in the churchyard of St Paul's, Covent Garden.

A few years before this event, we find one more well-known name associated with the coffee-house. In 1727 Aaron Hill published in the *Plain Dealer* a pathetic account of the unfortunate Savage's history, with some lines written by the latter on the unnatural treatment that he had received from his alleged mother. The result of the compassion excited by the sad story was a subscription for Savage's benefit. The various amounts subscribed were sent to Button's Coffee-house; and when Savage, a few days after the publication of his story, called there, he had the pleasant surprise of finding the sum of seventy guineas waiting for him. This is the last we hear of the once famous coffee-house; it was probably closed soon afterwards.

The literary reputation that Button's had enjoyed in succession to Will's was inherited by the Bedford Coffee-house, which was situated under the Piazza in Covent Garden. This house had a prolonged existence, and was frequented by several generations of famous men. Fielding, Foote, Hogarth, Churchill, Garrick, Sheridan, and many others of lesser note, were at home within its walls. The Bedford continued to be a haunt of literary and theatrical people until the early years of the present century, and thus formed a link between the coffee-houses of past times and the clubs of the present day.

THE LAST KING OF YEWLE.

CHAPTER II.—AT THE VICARAGE.

It was the unfortunate vicar of Yewle who was hiding like a thief in his own garden that night; and it was well that Gray did not see or recognise him.

When Gray had opened the gate and entered the little lawn in front of the vicarage, he was arrested by something he saw immediately before him. The blinds were not down in the window of the drawing-room in front of him, and he could see the occupants of the room. Mrs King half reclined on a couch, in conversation with a gentleman, who sat facing the window; Agnes sat on a footstool near her mother, with her head bent over some needlework, listening, but not looking up. It was neither the mother nor the daughter who arrested the attention of Francis Gray, and kept him standing on the lawn for fully a quarter of an hour; it was their visitor.

This was a man of about thirty-five, but so fair that he might have passed for ten years less. He had very fine auburn hair, a neatly-trimmed moustache and beard of the same colour—the latter pointed—and gentle blue eyes like a woman's. He was in every way a handsome, but by no means an effeminate-looking man, and his voice was low and soft, in keeping with his looks.

Francis Gray knew well who the visitor was, and the long gaze which he fixed on the man's face expressed no resentment of his presence there. Gray was absorbed in quite another line of thought, awakened by his thus suddenly coming on Richard King's face with the lamp-light falling full upon it. Nobody could help being struck by Richard King's resemblance to his unfortunate cousin, the vicar of Yewle; and if he were only attired in clerical costume as he sat at that table, even Rowan King, suddenly coming upon the scene, as Gray did that night, might have taken the man to be his brother.

Latterly, Richard King had become a frequent visitor at the vicarage—frequent, that is, for a man who resided twelve miles off and had his business to attend to during the day. At first he came to beg Mrs King and Agnes to visit his mother, who, from bodily infirmity, was unable to make the invitation in person. But Rowan King's wish was law at the vicarage, and Rowan King wished his brother's wife and daughter to remain there. Otherwise, it is probable Mrs King would have gone to Souther, for Richard King exercised over her a very persuasive influence. He was so like her poor husband—in looks, in voice, even in his manner of saying or doing the most trifling things—that she was always unfeignedly glad when he came to Yewle.

Poor Mrs King was blind to one thing, which her daughter, without disclosing her knowledge, saw as clearly as daylight. Richard King admired Agnes; whether he loved her, or was on the way to it, even Agnes herself could not discover. But he came to Yewle to see Agnes rather than her mother, though he might have another reason as well for riding those twelve miles so frequently. Once a week at least he came to the vicarage. Agnes, however, possessed enough of the characteristic reserve of her father's race to be able to retain perfect control of her sentiments, and not even her mother suspected the nature of her attitude towards Richard King. It is scarcely necessary to add that he did not know it himself.

One circumstance aided Agnes King in thus disguising her sentiments. The shadow of her father's shame had taken all the colour out of the girl's life, and wrapt her in a silent and subdued existence, into the secret emotions of which not even her mother's eye was able to penetrate. Francis Gray loved her with all his heart, and for some years had been almost her daily companion; but if he paused to ask himself seriously the question, he had not the faintest sign to guide him towards a discovery of the state of her feeling towards him. Had it not been for her father's misfortune, no doubt it would have been otherwise.

Richard King suddenly rose to go, and Gray stepped back among the shrubs to let him pass

out. Once, the young man turned quickly, with a slight start, fancying he had heard a heavy breathing a few feet behind him. Listening, he heard nothing now except the rustle of the leaves in the night-air. Richard King passed out into the road; and after a few minutes' interval, Gray went up to the door and rang the bell. Gray was a privileged visitor at the vicarage, and walked into the drawing-room without any formality. He was always welcome, and was not prone to criticise his reception. On the present occasion Mrs King extended her hand to him as usual; but Agnes merely raised her eyes as high as his waistcoat, and slightly inclining her head, went on with her work as before.

'Mr Richard has just left us,' said Mrs King. 'I wish he lived nearer; and it is so good of him to ride this long way as often as he does. But I do wish he lived nearer; he reminds me so much, in a number of ways, of my husband.'

'Mr Richard's resemblance to Mr King is very remarkable indeed,' said Gray, somewhat dryly.

'We like him so much, Agnes and I,' Mrs King was continuing, when her daughter stood up, kissed her, and said: 'Good-night, mamma; I have a headache.—Good-night, Frank.'

'Off already?' said the young man, a little blankly. What he had in his mind to say could not be said to-night. She merely answered 'Yes' without turning her face towards him, and left the room.

'It is not a headache,' observed Mrs King softly. 'I know how much we can trust you, Frank—just as though you were my son and her brother'—he moved uneasily at this—'and I will tell you what has taken place this evening. Mr Richard has asked my consent to his making Agnes his wife, notwithstanding what has happened!'

Gray's speech was taken away for a minute, and then, rather at random than from deliberation, he put the question: 'Has he asked Agnes?'

'No; but I think she is aware of it. Girls always know when such things are coming. If it were nothing else, Agnes could not help feeling grateful to him. It is not about Agnes I am doubtful; I am afraid Mr Rowan will be opposed to it.'

'He certainly will,' replied Gray, with the emphasis of conviction. 'He will never consent to it. And he has sent me to you with a message to-night, Mrs King.'

'A message?'

'Just to tell you the nature of the arrangements which he has in view when—when Mr King comes out, in a year or so. He thinks you ought to know. Mr Rowan says it will be impossible for his brother to remain in this country—that he must emigrate, and take a new name—and he has a sum of twenty thousand pounds to give you before you go. That's all.'

Poor Mrs King, in looking forward to her husband's release, had never given a thought to any circumstance associated with the termination of his punishment beyond his restoration to herself. She had not even reflected on the probable necessity of vacating the house she

lived in. This practical arrangement of Rowan King, generous as it was, brought the approaching situation in full force upon her—brought her face to face for the first time with the cruel fact that the stain was upon them for life, and could only be hidden by a disguise and amongst strangers. After staring at the young man for the space of a minute, the poor woman turned her face down on the back of the couch and burst into bitter tears—bitter tears of shame and grief.

Gray was deeply distressed, and knew not what to do. In his embarrassment he did the best thing—that is, he did nothing, and allowed the lady to have her cry out. After this, she was more composed and, as her train of thought showed, more hopeful.

'No one who knows or ever knew my husband,' she urged, 'believes that he did that wicked and shameful thing. Would it not be an acknowledgment of his guilt, then, if he were to flee the country? Surely, surely, Heaven is too just to allow an innocent servant to lie under the shame of such a charge!'

'Alas, Mrs King, all that could be done has been done. Mr Rowan spared no expense to establish your husband's innocence. Of course we all know he is innocent; but the world is very hard in its judgments.'

She was silent for a while, rocking to and fro with her hands clasped. At length she said: 'Rowan King is the best of men, Mr Gray. Give him my grateful thanks. But oh, tell him that I pray and hope and believe that, in the mercy of God, before another year is over my husband's innocence will be proved to all the world!'

'I pray Heaven it may, Mrs King,' answered the young man reverently.

Just then the conversation was interrupted by the sudden reappearance of Agnes at the door in a state of deep agitation. 'Mother, mother, mother!' she cried, in a voice of suppressed pain and excitement, 'come with me at once!'

'Agnes! what is wrong?' exclaimed Gray, approaching her. She raised both hands before her face and almost angrily repelled him. 'Go away, go away!' she said. 'Go home from here, at once!'

'Very well, Agnes—good-night,' he said, amazed rather than offended.

She made no reply, and seemed not to notice him further; but taking her mother by the hand led her from the room, leaving him alone. He took his hat and left the house, wondering what it all meant, and doubtful whether he was doing right in obeying the girl's commands. But there had been that in her voice and look which compelled him to obey.

Breathing quickly, apparently unable to speak, Agnes led her mother from the room by the hand, and down the passage to the door of her father's study—a room which, even to a half-finished sermon on the table, had been religiously kept as he left it the last time he was there. She stopped at the door and looked in her mother's face. 'He bade me not to tell you, mamma, but I must,' Agnes said in a low voice. 'Papa is in the study. He wants you; but I am not to come in now. Dear mamma, you are not afraid of him?'

Truly Mrs King looked like one in great fear: her face had turned white, and she shrank back from the door. It was not fear of her husband, but fear of some vague danger associated with his presence in the house, which she had no power to analyse. Her first terrifying thought was that he had escaped from prison. His appearance when she entered the study did not remove this apprehension. He was not dressed like a clergyman, but more like a groom. The short-cut hair, the stubbly growth of beard, the worn face, and an unsettled gleam in his eyes, caused the lady to stop short, in doubt and astonishment. It was not until he spoke that she flew to his breast and hid her face with sobs and tears.

'Oh Charlie, Charlie, Charlie!' she murmured; and then there was a long silence.

He led her to a chair—his own chair in the old happy days—and made her sit in it.

'Is it over, Charlie?—I mean your'—

'Imprisonment? Yes, it is over now, I suppose. I don't clearly know why I came here. I have walked all the way from Portland; and to avoid the shame of being recognised, I must be gone again before midnight.'

She only caught that part of his speech which referred to the journey from Portland, and rose at once, with a woman's first solicitude, to bring him food and refreshment. Whilst doing this she thought of what he said about going away before midnight. 'Now, Charlie,' she said, placing the things on the table, 'sit in your own chair while you eat and drink.'

'No, Florence; I shall never sit there again,' he said sadly.

'Why must you go, Charlie? As you are free now, will you not stay at home with us the same as before? Ah, darling, we have missed you so sorely; and all will be so glad to see you again—your brother Rowan most of all, next to Agnes and me. And God, who is just and merciful,' she went on, speaking rapidly, 'will not suffer the cloud to rest upon you for long. Every day that dawns may bring to us the proof of your innocence. Some day it will come!'

'Florence,' said her husband in a hard voice she had never heard from him before, 'you know not what you say. I cannot stay here; I can no longer perform the functions of the ministry. What do these clothes mean? That I am an unfrocked priest. What does my presence here to-night mean? Simply that I am a ticket-of-leave convict, bound to report myself, like other released felons, to the police, so that they may keep a constant eye upon me. I have no right in this house, for which reason I have to creep in under cover of darkness.'

'But the house is Rowan's; he will give it to nobody else,' she said, the tears hanging in her eyes. 'Oh Charlie, do not go away; or if you do, let us come with you.'

'No, Florence; that cannot be. The best I can do for you and Agnes now is to leave you. My presence would only blight both your lives, especially hers. I must go, and go alone.'

Then she eagerly, but not without a good deal of hidden grief and shame, told him of the arrangement which generous Rowan King had in view—that of giving his unfortunate brother twenty thousand pounds to leave the country

with, and take an assumed name in another land.

'To whatever land I went, my shame would find me out. No; I will not accept his offer. Rowan shall be rid of me on easier terms. I shall go alone.'

While his wife silently wept, he strode up and down the room with his arms folded tightly across his chest, and a darkness settling down on his face that indicated the accession of a fiercer mood—a mood such as never had been seen upon him in the old days. But four dire years of unmerited punishment and disgrace are a terrible test, and the unfortunate vicar did not come out of it unscathed.

'Could a greater wrong be done to any man than that which has been done to me? I had not deserved it at any man's hands. I never knowingly injured a fellow-creature even in thought. Why was I selected for such misfortune? Florence, the man that wronged me I will never forgive, not even on my deathbed—the man that wronged us I will never cease to follow until I have overtaken and punished him. —I only wish,' he added, raising both his hands above his head, 'that I had the power to punish him as he has punished me! There needs to be a place of sorrow beyond the grave, to balance the evils that men do in this life!'

'Oh Charlie! do not talk in that way,' she pleaded.

'At my solitary work in the quarries,' he went on, not heeding the interruption, perhaps not hearing it, 'in the solitude of my unlighted cell, I have thought over all that matter, as I had not been able to think before I was convicted. A light fell upon me that will bring me to the face of the wrongdoer. If there is justice under heaven, that man shall pay the debt that he owes me, yea, to the uttermost farthing! He thinks, perhaps, that the mild parson is not an enemy to be afraid of—but that has been born in me since which will cause his face to blanch and his heart to quail when he meets me again.'

'Vengeance is Mine, saith the Lord,' the poor terrified wife ventured to say.

'It is not vengeance that I claim, but justice,' he replied. 'Justice that smites with a sword—that is my right, and that I will have.—But enough of this,' he added, in an altered voice; 'it draws near midnight and I must go.'

At his request his daughter was brought in. Placing his hands upon their heads, he gazed into their faces for the space of a minute without speaking. Then, after a convulsive movement in his throat, he turned his face upwards and said, scarcely loud enough to be heard by them: 'The Lord bless and keep you, and preserve you from all harm.'

While their eyes were blinded by their tears, he moved quickly to the door and passed out.

Perhaps the first night they spent alone in that house, now four years back, had not been so laden with grief to the mother and daughter as the present one. There is no need to analyse the cause of their piteous tears and heavy hearts, while the thought of the husband and father, a wandering and homeless outcast, was ever present to them.

Early next morning, Mrs King was startled

from her first troubled slumber by a knocking at the back door below. Quickly throwing on a dressing-gown, and full of the thought of her husband, she ran down and opened the door. It was one of the gardeners from the Hall, white and scared, with the horrible news that Rowan King had been murdered during the night.

A FAMOUS TECHNICAL COLLEGE.

Few Englishmen, we suspect, in thinking of the great educational centres of the world, would turn their minds to the Swiss city of Zurich. Yet a most excellent authority, the late Sir Francis O. Adams, our envoy at Berne, calls it 'one of the greatest scholastic centres, not only of Europe, but of the whole world.' Zurich is indeed an educational marvel. Her primary schools are amongst the best of their kind, and her secondary and higher schools are not less excellent, whilst her medical, physical, physiological, chemical, agricultural, and other colleges are not only of the highest order of excellence, but are in almost bewildering numbers. The Zurich University on its present footing dates from 1832. Above all, the splendid federal institutions for the study of chemistry, physical science, agriculture; the Observatory and so forth, which cluster round the great central Polytechnicum, make the beautiful heights above the city a veritable Acropolis of learning. The *tout ensemble* indeed forms an intellectual High City, and is the pride and glory of the town. All this in a place of only ninety thousand souls.

Leaving the other educational institutions, however, we desire in the present paper to give some little account of the great Polytechnicum and its satellites, which together form, beyond all doubt, one of the most important technical colleges in the world. In these days, everybody is agreed as to the necessity of good technical training if we are to maintain at all our industrial eminence among nations, and we see technical institutions of more or less completeness and efficiency springing up here and there in our own country. To show, however inadequately, what has been done in this direction by the little Swiss nation is the object of the present paper.

Before commencing a description of the different buildings, it is perhaps well to remind English readers that in Switzerland each canton is left to provide as it pleases for its own educational wants, and that, consequently, the public schools are cantonal, and not national. There is, however, one great exception, that of the Polytechnicum of Zurich, which is a national institution, organised and maintained by the Swiss Confederation. There has been much talk, too, of founding also a great national University; but that project has not yet been carried out, whatever may be done in the future.

In 1860 was commenced the erection of the chief or central building, which alone bears the name of Polytechnicum. The canton of Zurich provided a fine site on the heights overlooking the town and lake, and also bore the cost of erecting the building itself. Then the State stepped in, and provided all the internal fittings, apparatus, &c.; and now makes liberal grants, to whatever amount may be necessary, for the maintenance of the institution. The edifice is a conspicuous and imposing quadrangular block, some four hundred

and twenty-five feet by three hundred and fifteen feet. It is built of stone, in the lower portions rough-cut, in the upper portions dressed. The middle part of the principal front, facing west, is a grand projection of some ninety-five feet frontage, in the rich Renaissance style. The building is approached by a fine flight of steps, as it rests on a natural terrace, the view from which is exceedingly beautiful, and calls forth the admiration of every visitor. The edifice itself presents a singularly massive and imposing appearance.

Nor does the interior belie the expectations formed from a view of the exterior. On entering, the visitor finds himself in a grand vaulted entrance-hall, from which two noble staircases lead in opposite directions to the upper rooms. At the back of the great hall lies the Museum of Antiquities, where is stored a rich collection of Classical and Renaissance art. This collection belongs mainly to the University, which, we must not forget to say, is housed in the Polytechnicum building. In fact, the edifice may be considered as divided into two halves or wings, one, the southern, devoted to the purposes of the University; the other to those of the Technical College proper. Another striking room is the Aula, or grand reception room, where take place the solemn ceremonies and functions, as well as the festivities. It occupies the whole front of the central or projecting portion of the building, so far as the second floor is concerned. The ceiling is adorned with beautiful paintings, the subjects being of a mythological or allegorical character. At each end of this elegant hall is a graceful *estrade*, one for the professors presiding at the public functions, the other for the students singing or declaiming on these occasions. The *sculpture*, illustrating general Art and Science, more especially Architecture, which adorn the front of the north wing, are very fine, and well worthy of notice. But it would be simply impossible, as it would be tiresome to the general reader, to give a detailed description of each room in this grand edifice; suffice it to say that it is in every way a splendid testimony to the talents of its designer, the famous architect Semper, who was for many years Professor of Architecture at the University.

We have said that the University occupies a portion of the Polytechnicum. The remainder of the building—the Polytechnicum proper—accommodates the following Schools or Faculties: Architecture, Civil Engineering, Theoretical and Technical Mechanics, Mathematics, &c., and General Science. In the central portions of the building are the offices of the management, curators, and so forth; whilst the basement contains the laboratories, workshops, and machinery; the lecture-rooms, libraries, and museums being chiefly on the upper floor.

Hardly inferior to the Polytechnicum is the great *Chimiegebäude*, or College of Chemistry. It is in the vicinity of the former building, and, like it, looks also to the west. Of this structure the lower story is in freestone, the upper stories partly of brick. A fine porch and ornamental gardens give the front a most pleasing appearance. The central portion of the building is of three stories, and has a frontage of about two hundred and eighty feet. From this runs on each side a one-storied wing one hundred and eighteen feet long. The wings projecting rearwards have galleries,

open at the sides, but roofed in above, so that students may, if desirable, experiment in the open air. The Chemistry School naturally divides itself into two great sections, the chemico-industrial or technical section, and the theoretical or analytical division. Entering the vestibule, we find the former occupying the right-hand portions of the building, whilst the latter section occupies the left-hand. The series of laboratories is very complete, being designed to meet the wants of several subsections—for example, the Industrial, the Pharmaceutical, the Photographic, the Analytical, the Assay, and what not. In this building, too, is housed the Station for the chemico-agricultural investigations carried on by the State; but this is not strictly a portion of the great technical institution of which we are treating.

Leaving till somewhat later a description of the laboratories, we will pass on to the third of the great buildings forming the Technical College. This is the College of Physical Science, lying at some distance from the two former. Great care was taken in selecting a site for this institution, and it is perched aloft on a declivity of Zurichberg. In lofty isolation it towers above its sister colleges, standing free on all sides, accessible to the light, sun, and air. It is thus aloof from the din of the city, from the reverberations caused by carts or machinery, and from the smoke and tainted air which might interfere with the delicate experiments to be carried on in the building. The cost of such an edifice in such a place was enormous, the front having to be supported by a large substructure. Advantage was taken of the formation of the ground to provide underground laboratories, which are connected with the main building by a passage and winding staircase.

The main portion of the building, which, by the way, is only just completed, has the form in ground-plan of a horizontal capital E (W) with a frontage of about two hundred and twenty feet; and, with its two-storied centre and three-storied wings, with its splendid terrace and handsome approaches, is perhaps the most striking of all the buildings connected with the Polytechnicum, whilst its position is unrivalled.

Time would fail to describe the minor but still admirable institutions which go to make up the great Technical College of Zurich. Suffice it to say that there are the College of Agriculture and Forestry, the Observatory, and the Botanical Gardens, besides plantations on the Zurich heights, and stations where practical and experimental horticulture and vine-culture are carried on, the whole being available for educational purposes, in connection with the Polytechnicum, the College of Chemistry, and the College of Physical Science, described above. Truly, a grand and almost unique collection of institutions for the furtherance of technical and industrial studies.

It is now time to turn away from the buildings themselves and inquire what is being done in them. The difficulty of giving an adequate idea of the work done in the Zurich Polytechnic institutions will at once appear when it is stated that the staff of professors and teachers numbers no fewer than one hundred and twenty-two, and that the astonishing number of two hundred and forty to two hundred and eighty distinct courses

of lectures are given each six months. So many are the subjects taught, and so various the practical courses taken, that it is only by consulting, and indeed carefully studying, the official prospectuses of the institutions that one can get any clear notion of the vast and complex educational machinery at work. A general view is all that can be attempted to be given here.

The Polytechnicum—using this term to denote the whole of the institutions together—is divided into seven distinct sections or colleges, the courses of study varying from two and a half to four years. They are: (1) The School of Architecture, with a course of three and a half years. (2) Civil Engineering, (3) Mechanical Engineering, with a course of similar duration. (4) Chemistry. This splits into two sections: (a) Chemico-industrial, with a three years' course. (b) Pharmaceutical, in which the course of study extends over two and a half years. (5) Agriculture and Forestry. Here there are the divisions of Agriculture, Forest-culture, and Agricultural Engineering, the attendance required varying from two and a half to three and a half years. (6) Professional, or rather Professorial, School for the training of teachers, professors, and scientists generally. This School has two divisions: (a) Mathematics (four years' course). (b) Natural Science (three years' course). (7) Last, and most characteristic of all, the Division des Cours Libres (Freifächer), or School of Philosophical, Political, and General Science, as we may call it. The studies pursued are very various, but they may be grouped under three heads: (a) Mathematics and Natural Science. (b) Philosophy, History, and Literature. (c) Political Science, Political Economy, National Law, with an additional section for Military Science.

This Division des Cours Libres counts by far the largest number of students of any, and is a peculiar feature of the Zurich Polytechnicum. It was called into being to meet a distinct and much-felt want. Man cannot live by bread alone, neither can he live on mathematics, or chemistry, or physics alone; and even the most earnest technical student will crave for some knowledge of his own and other tongues and literatures, of the history of bygone times, of the laws under which he and others live, of the sciences of political economy and political philosophy. The Swiss authorities early discovered this, hence the Division des Cours Libres. As its name implies, attendance in the classes comprised in this division is optional, whereas in the other divisions it is compulsory on all who wish to gain diplomas or licenses to follow different professions and callings. As a matter of fact, considerable numbers of occasional students, as they may be termed, attend these optional courses. It is worthy of note, however, that as a general rule the regular student in one of the compulsory divisions is expected to attend also one or other of the optional classes, though it is left to himself to make the selection.

The teaching staff, as has been said already, numbers some one hundred and twenty-two. Of these, forty-nine are regular professors, with salaries ranging from two hundred pounds to four hundred and eighty pounds per annum. They are elected for ten years, but are eligible for re-election at the end of that period. There

are six honorary Professors, with only nominal salaries or none at all. The auxiliary or assistant Professors number twenty-five, all salaried. Lastly, there are forty-two 'Privat-docenten,' usually young men of promise who have taken high honours in their own university courses. The institution of Privat-docent is one well known to all who have any acquaintance with the German university system. From the Privat-docenten the Professor class is recruited. Candidates for admission into the classes of the Polytechnicum must have completed their eighteenth year, must produce satisfactory certificates of good conduct, and must pass an entrance examination. The courses are open to foreigners on similar conditions.

Perhaps the most striking thing about this institution is its low scale of fees. It will hardly be credited by the English reader that the yearly fees of a regular student are only four pounds. There are, it is true, certain extras, but they are very moderate in amount. The chief of these extras are a half-yearly charge of fifteen to sixty francs for laboratory, and five francs for use of library. There is also an annual charge of five francs for sick fund, the student in case of illness being nursed at the hospital free of all further charge—a really admirable arrangement. To the Privat-docent or Professor-extraordinary who teaches him the student pays five francs per week. It will surprise no one to hear that the fees of the students make up only one-sixth of the cost of the Polytechnicum, and, as the institution is quite unendowed, the charge on the public taxes is heavy. Including everything, the total cost is about a million francs per annum. With a liberality that does it the highest honour, the Swiss Confederation admits foreign students at the same rate as natives.

In the Schools, the course of instruction includes lectures, laboratory, and other practical work, compulsory repetition, and annual examinations. From the day of a student's entrance to the day of his leaving, a register is kept—a sort of log-book, or rather doomsday-book—in which are recorded his attendance, conduct, progress, efficiency in practical work, and what not. This register, in fact, furnishes a complete history of his performances during his stay, and on it to a large extent depends his promotion, natural ability being of course taken into account. Both native and foreign students may compete for the gold or silver medals, money prizes, and what not, which are awarded. A special feature is the system of prizes for the best solutions of scientific problems which are proposed for competition, a period of eighteen months being allowed for them.

The Zurich Polytechnicum cannot confer degrees; these can be, and in a very large number of cases are, obtained from the sister institution, the Zurich University. But the diplomas of the Polytechnic are greatly valued, not only in Switzerland but beyond its borders; and justly so, for they mark a high standard technically and professionally. About fifty-four per cent. of the students compete for the diploma, and of these sometimes not more than forty-five per cent. are successful in obtaining them, though as high a percentage of passes as seventy-five has been reached. On the whole, therefore, only from one-

fourth to two-fifths of the whole number of students succeed in gaining the coveted diploma, a fact which speaks volumes for the standard required.

In a technical institute, practical work naturally is of extreme importance, and at Zurich everything is done to make this as effective as possible. Accordingly, workshops, laboratories, and modelling rooms abound; whilst there are plantations, experimental grounds, vineyards, and so forth; and planting, experimenting, testing, building, modelling, go on continually. To agriculture in all its branches great attention is given in the separate Schools devoted to those branches, and in the farms, forests, and vineyards attached thereto. With regard to the laboratories, it must suffice to say generally that everything in the way of fittings and apparatus is the best that modern science can devise. This is especially the case in the great Chemistry and Physical Science colleges. The marvellous strides made in these two branches, amounting almost to scientific revolutions, necessitate constant additions to, and readaptations of the apparatus, and to these calls the authorities respond most liberally. These colleges are a source of pride and pleasure to the federal authorities; but it would be a mistake to suppose that the other sections are less thoroughly attended to. On the contrary, the mathematical teaching in the sixth division, for instance, is of the highest kind, and can compete with that given in any university.

A few words of description of one of the laboratories must close this short sketch. The visitor finds himself in a large, airy, and lofty hall, lighted by high windows on each side. The windows each contain the fittings and apparatus required for one student, and there are altogether places for sixty-four students in the room. Each place contains gas jet, water-supply, sink, slab, distilled water, apparatus of various kinds, reagents, &c., whilst the best arrangements are made for drainage and ventilation. Compressed air, air-pumps, oxygen, and so forth, are plentifully supplied. For the more dangerous experiments there are special cells of iron in the basement. In short, nothing of use or advantage that can be devised or procured is wanting in this admirable institution.

HENDRIK SWANEPOEL'S PROMISED LAND.

CHAPTER IV.—SWANEPOEL'S REST.

DINNER proceeded; and the meal was followed by a great peach-pie and a plentiful supply of rich cream.

'Vrouw Swanepoel,' said Farquhar, addressing his hostess, 'you fare better up here than your countrymen in Cape Colony; and your cooking is better too. I must compliment you, voer-trekkers of civilisation though you are, on being so much ahead of us in the old Colony. But there is one thing to be said: you have some wonderful grass-veldt up here for your cows and oxen; and at the Cape we haven't always the pasture except for sheep and goats.'

The repast—which was accompanied by a light wine, home-made from the cultivated descendants of the indigenous wild-grape of the country—and

grace were at length finished; and pipes and tobacco being produced, they adjourned to the terrace on the shady side of the house.

'This tobacco,' said Swanepoel, 'which I think you will find passably good, is made from leaf-plants actually sprung from a few tobacco-plants carried and greatly cherished by our ancestor in all his wanderings. He was a great smoker, and he tended the plants he took with him from the Capeland as carefully as his own children. Even in the droughts and the thirst-lands he passed through, he ever spared water for his beloved tobacco-plants; and at last, when he reached this valley, he found his reward. These lands by the river grow fine crops of tobacco, and you may even judge for yourself whether it is good or not.'

Farquhar took hold of a great roll of tobacco, and cut off a plug or two; he noticed that it appeared of a lighter and more golden colour than the Boer tobacco of the Cape, and that it smelt, too, far better. Rubbing the plugs between his palms till they were unshredded, he filled his pipe and lit up. Swanepoel was right; the tobacco was delicious; equal, indeed, to the choicest American, and incomparably better than the Cape stuff he had been so long smoking.

'Well; but, Mynheer Swanepoel,' said he, 'how is it you cure your tobacco so much better than the Cape farmers, besides growing evidently a much better leaf?'

'Allemagtig!' laughed the hearty Dutchman, smacking his great thigh with a resounding clap, 'you amuse me vastly, Mynheer Murray. It seems, then, that we poor voer-trekkers can teach you Colonists something, after all. But all this—our coffee and wine and houses, and every good thing in this our settlement—we owe to Hendrik Swanepoel. He was indeed a man, full of knowledge, learned in books for his times, and far-seeing. We build our houses from his plans and instructions; and we grow and prepare our tobacco and wine and coffee from his own methods, laid down in his Book of the Settlement.—But see here; you would know more about us.—Piet, fetch me the great Bible and Hendrik Swanepoel's Book of the Settlement.'

Piet quickly brought the books from a wagon-chest in the corner. Opening an old, strongly-bound book, Swanepoel placed it before his visitor. Farquhar looked carefully through the stained and ancient pages. He found first, in a quaint old-fashioned handwriting, and in old-world Cape Dutch, such as his host and his family still used, a short diary of Hendrik Swanepoel's journey, beginning in 1760, when the Cape settlements were quitted. It was all deeply interesting; and the peculiar phraseology, the quaintly-shrewd remarks scattered here and there, the stubborn determination to press northwards, and the devout faith in God, greatly struck the young Englishman, and convinced him that this pioneer of the last century had been a man head and shoulders above his fellows, whether in knowledge, determination, or fertility of resource. This was a man evidently far removed from the mould of the ordinary frontier Boer; and from what Farquhar could see, his impress had been transmitted to the flourishing settlement he had founded in this remote wilderness.

A perusal of the Journal gave Farquhar some clue as to the long and weary wanderings of the voer-trekkers. The names of tribes passed through showed that, after quitting Bushmanland and crossing the Orange River, the expedition had moved slowly through the Griquas and various Bechuana tribes. Then a detour seemed to have been made, and a great lake discovered to the westward—evidently, Lake N'Gami. In the swamp-country hereabouts, it seemed that fever had taken hold of the trekkers: two of the children, the youngest girl and boy, had died; the oxen had almost all perished; and a delay of nearly a year had taken place. Then retracing their steps, the party had wandered by a long circuitous route north-eastward, and round again in a half-circle, until the valley where this champion of trekkers had finally pitched his life-tent, had been attained.

As Farquhar turned over the faded yellow pages of the book, he realised to himself those five long years of burning toil, of daily and nightly dangers from wild beasts and wild men, of fever-swamps and thirst-lands; he realised, too, with what ineffable contentment the hardy voer-trekker had first fastened his gaze upon this beautiful valley. Span after span of oxen had gone down in the struggle—lost, killed, or worn out—and, with infinite trouble and delay, fresh teams had been collected and broken, and the trek renewed. It was a wonderful record, as Farquhar acknowledged to himself.

The rest of the Book of the Settlement, as it was called, was filled with notes and written instructions upon house-building, cropping, the cultivation and curing of tobacco, fruits, &c.; the treatment of horses and oxen, and many other matters. Finally, the book was for the present closed. Then the great clasped Bible, bearing on its title-page the date 1670, printed at Amsterdam, was produced and opened. Upon the first fly-leaf was contained the pedigree of the Swanepoels; upon the second, written in the antique hand of Hendrik, a self-devised table of the laws of his newly-formed Settlement. Translated into English, it ran thus:

A Table of the Laws of the Settlement of Swanepoel's Rest, founded by Hendrik Jacobus Swanepoel in the year of our Lord 1765.

(1) No male descendant of Hendrik Jacobus Swanepoel, except such of his sons as for the purposes of polity and for the better creation of the Settlement have been so allowed to marry, shall marry with black women. (2) No daughter or female descendant of the said Hendrik Jacobus Swanepoel shall marry with a black man. (3) The Settlement is ever subject to the Ten Commandments of Moses and the Protestant faith as taught in the Dutch Church. (4) The Sabbath shall be held sacred and undisturbed save in time of war. (5) Questions of law, of policy, and of punishment shall be decided by Council of males over the age of twenty-one years, and the decision of the majority shall prevail and be binding. (6) The ceremonies of baptism, marriage, burial, and Nachmaal [communion], the services of the Church and the teaching of the young, shall be performed by the Predikant [Pastor] for the time being of the Settlement, such Predikant being

chosen and dedicated to his office by solemn council of the Settlement. The said Hendrik Jacobus Swanepoel for the present bearing the office until such time as a new Predikant shall be appointed. (7) All children shall be educated by the Predikant, who is to teach them to read and write well in the Dutch language, to know thoroughly the Bible, as also arithmetic, geography, and history from the Books of the Settlement, until the age of sixteen years be attained.

There were twenty-one of these rules in all; the seven above quoted being fair samples of the whole. At the foot of all stood the signature—

HENDRIK JACOBUS SWANEPOEL.

'Now you may judge what sort of man our ancestor was,' said Mynheer Swanepoel as he closed the Bible. Then walking out to the stoep, they surveyed the valley. 'There is our church, and beside it our schoolroom, where all our children are taught; there lie our vineyards, tobacco-fields, our orchards, and our cornfields; and there, too, part of our pastures; for these extend far beyond the mountains; and our cattle and flocks are herded by our servants among the Bakotwas. When we go forth, I will lead you to our various houses, that you may know us all.'

For two hours longer the conversation went on, and Farquhar was busily employed in recounting the history of the world for the last hundred years. The Swanepoels heard with amazement, and, it must be added, with pain—for although severed by a century of years and many thousand miles from their ancient rulers, they had retained a warm loyalty—that the Batavian government no longer held the Cape, but their ancient foes, the British. This delicate matter was dexterously softened by the explanation of Farquhar that the Prince of Orange had originally, on flying, in 1795, a refugee to England, from the armies of Napoleon, handed over the Cape to George III.'s government; and the matter was thus smoothed over.

At length a native brought tidings that the Englishman's wagon was now at the entrance; and by Farquhar's orders it was directed to be there outspanned, as it was impossible to get it through the narrow pass. Gert Swanepoel and his guest now ordered their horses to be brought round. Jacobina, or Bina, as we must call her, elevating her eyebrows, as if surprised that her company was not requested, added to the black servant: 'Klaas, ye may bring round Springhaan also.' Then looking archly at her father: 'Ah now, father dear, I have had no long ride this month past; you must even take me too.' Gert looked with an easy helpless smile and a shrug of his broad shoulders from Bina to the Englishman, and then, as the latter added, 'Oh yes, indeed, Mynheer Swanepoel, I don't think we can do without Miss Bina's company,' he said: 'Allemagtig, Bina; you always get your way with me, hussy; and as I can't deny our new and most welcome friend here, why, I suppose we must take you.' Bina for answer dropped a demurely roguish curtsy to both, and took down her little riding-whip from its nail.

The trio mounted, and rode gaily away till they came upon the wagon and Farquhar's belongings. By his host's advice, a camp was

formed in a clear open space, and a stout kraal of thorns built round, as a protection against lions, which haunted the vicinity, although now seldom venturing into the valley. The oxen and horses were directed to be driven up to Gert's kraals for safety; and it was arranged that three of Farquhar's servants should for the present stop with the wagon. Then the party, led by the father, turned back upon a tour of calls, and by dint of some diplomacy, managed to score to their credit some fifteen of the thirty odd establishments in the valley. Gert explained that these thirty-three households by no means represented all the descendants of Hendrik Swanepoel. Within the hundred years of the little colony's existence, some had met their death by accidents in hunting and encounters with wild beasts; some few had died of fever and other diseases. Three complete families had by permission of the Council trekked away still farther into the interior, only to return years after, reduced by privation and disease to the miserable and enfeebled remnant of three souls.

By all the settlers Farquhar was received with the heartiest welcome and the greatest wonderment. He was looked upon, indeed, by many as a kind of materialised angel, descended amongst them to bring tidings of the old days, well nigh forgotten, of the dim outer life that Hendrik Swanepoel had quitted. Their eyes told plainly of the inward working of minds fogged and bewildered by the mist and silence of a century of peaceful stagnation, of utter isolation. After they had shaken him by the hand, they extracted from him a not unwilling promise to stay some time with them. Amongst these good and kindly souls, the Englishman noted the same old-fashioned politeness that he had found in Gert's family. He noticed, too, that the strain of black blood, introduced a hundred years back, yet lingered amongst them. There was nothing unpleasant about it; Farquhar had remarked the taint far more in England in one or two families he had met with. A touch of crispness or curliness in the hair, magnificent teeth, here and there a clear olive or more swarthy complexion, a quicker eye, a more active form than are usually seen amongst the Cape Dutch—these were the sole traces of the forced admixture of blood. On the whole, as Gert Swanepoel assured him, and as he himself could see, the race was improved and not degenerated, to all outward appearance.

On their way home, Gert told his visitor that of his ancestor's four surviving sons, the eldest—his own great-grandfather—had married his cousin, the young Dutch orphan girl. The other three sons had been mated with three of the finest and handsomest girls of the brave and warlike race of the Bakotwas, with whom the trekkers had first fought, and afterwards entered into friendship. Hendrik's only other surviving child—the daughter—had died unmarried. In Gert's own family there was but the faintest tinge of coloured blood. Gert's grandfather had married, of course, a cousin, a daughter—herself almost pure white—of the union between Hendrik's second son and a native girl; and in his own generation the tinge was almost, and in his children's entirely, imperceptible. Amongst the rest of the settlers, owing to the

Bakotwa blood on the sides of both father and mother, the dark strain was rather more perceptible.

At length, nearly wearied out, just as the red sun was sinking behind the mountain-chain, Farquhar was fain to cry 'Enough;' and the party, crossing the rude bridge, made their way back to the great homestead. It was a glorious, warm, mellow evening; the valley was now bathed in a ruddy flush of colour; the mountains stood as they had stood for aeons, silent and solemn, yet inexpressibly beautiful; those that fronted the dying light, clad in a spreading mantle of softest rose; others, from which the splendour of day had well-nigh passed, arrayed in a deep purple, wonderful and most glorious to look upon. Beneath the flushing splendour might be seen the herds of oxen and cows, and the flocks of sheep and goats returning in charge of their native herdboys to their respective kraals, their lowings and bleatings pleasantly resonant through the warm air. The white homesteads now gleamed ruddily here and there. Never, thought Farquhar, had he set eyes on so fair a scene, not even amid the shaggy uplands and the dark-green bush-veldts of well-loved Albany.

After a cheery supper and a smoke, and a cup of peach brandy and water, bedtime arrived. The day had been one of new sensations and infinite surprises to the young Englishman, and he was not sorry to retire to the great room where the sons slept, and where a comfortable bed had been prepared for him. Bina and her little sister advanced to bid good-night artlessly, but evidently expecting as they shook hands some warmer greeting. As he kissed Bina's soft cheek, a thrill of pleasure ran through Farquhar's veins and fibres. Then the soft brown eyes met his, seemingly with a keen pleasure, and with 'Good-night' they parted.

BOYHOOD.

A SKETCH.

How pleasant it is to be recalled to the days of youth and the times that have all too quickly fled by a catch from the old harmony sounding clear through the din of life's busy turmoil. It comes upon us so suddenly, and withal so pleasantly, like the first breath of pure country air after a sultry summer in the Reading Room of the British Museum, that it invigorates the whole system with a rejuvenescence peculiarly its own. It makes life purer and holier for a time, by carrying our thoughts away from the fierce struggle for existence back into the dreamy thought-land of our first spontaneity and love.

Such a refreshing glimpse of the old life came back to us the other day when we picked up a little book called *Tales and Rhymes in the Lindsey Folk-speech*. It is a mere trifle—a few sketches, riddles, and songs, thrown together with a slight introduction. But it has a freshness and originality truly delightful; and one which gives a native of Lincolnshire a thrill of keen pleasure by its perfect delineation and

poetic sympathy with the customs and speech of the still untutored 'Yellowbelly.'

We cannot be boys for ever, and would not if we could, for manhood's pleasures and occupations are more engrossing, if less satisfying than those of youth; but still, on looking back, those years of superabundant energy and perfect health shine like a fair picture set in a bright frame, illuminated with a ruddier, warmer light than we find in the world of to-day.

The old tree-shaded farmstead rises up before the mind as we write, with its covered feeding-yards and vast granaries, built when wheat was still worth growing, and the country was engaged in endless wars. The orchards had a heavy fruitage in a fair season, though lichens, canker, and slow decay had done their worst, unchecked by the kindly hand of man for a generation. The large fishpond at the side of the paddock was full of beds of the white water-lilies, where perch and pike and carp basked and sported as they listed in the sun's full blaze. No coarse-billed goose was allowed to defile its bosom; and the ducks were so constantly crossed with the far-flying mallard, that in the evening they would call their cousins from the sky to join their midnight revelry. Perhaps if you approached the bank quietly through the orchard, as the gloaming was settling silently into night, dim shadows would steal away, like the ghosts of restless sinners. A sinner, indeed, is Jack Hern, or the Heron-Sew as he is locally called, and a robber of unlimited capacity, as every pisciculturist knows to his cost. The same bird that moves so silently away in the dusk would have taken flight with a scream of fear in the broad daylight if suddenly surprised.

A huge willow overshadowed the water from bank to bank, and gave a secure retreat to a boy feeding the fish with an eye to future sport, or watching the quick movements of the timid water-hens; or the mud-fetching, fly-catching swallows and martins that skimmed over the water from light to dark. The cobwebs and dust of a hundred years could not keep one from the high roof-trees of the barn and sheds; or the other from attaching its tiny house to the insecure surface of the whitewashed bricks beneath the eaves. In the woods which surround the house, and shade it from the north and westerly winds, the rooks caw out their evening prayer in the afterlight, as of old, with a final deep-throated intonation like the last Amen of a cathedral choir after the parting benediction, from some dry-faced patriarch not quite sure of his footing on the overlaid branch. But the sons of the place stand no longer in reverent awe listening to their pious lullaby, as the fretted tracery of the canopy of ash has ceased to seem the floor of heaven long ago. The men have grown too knowing for any folklore or old wives' tales, however cunningly told by village word-painters with master-minds for Gothic detail. They would not think of getting up before dawn now, as they once did, to see whether the birds prayed together before flying away to feed. Parson rook, as we used to call him, is the farmer's plague nowadays, a May-day sport for half-a-dozen guns.

Marble and peg-top in the pebble-strewn schoolyard were our sports then, with an occa-

sional game of hockey in the narrow green lane down by the beck, none the less enjoyed because it was forbidden ground. What a craning of necks and stretching out of sticks there was when the ball flew over the parapet of the bridge at the bottom of the incline, till some one less fortunate than his fellows 'caved in' with a hollow bank, or shot from his footing on the slippery stones into the deeper water. He was the 'cat's-paw' and the hero of the hour at once, and the game began again with increased glee, a heavy push from the sodden 'water-rat' being almost as good as a ducking. The powers that were had to be appeased in the person of the Squire, by standing aside with much touchings of caps as he passed to market or the magistrates' bench; or when Tommy took up all the road with Beauty, Bright, Diamond, and Blackbird drawing one of their weekly wagons of potatoes or corn to the nearest canal, for we had a wholesome dread of the carter's whip from past experience.

After the age of school-days and playthings came the time of youthful sporting weapons. The long-bow with mallet-headed arrows for little birds of delicate plumage; and the cross-bow with leaded iron bolt for all strong-winged fowl. A steel bow, with gun-like butt and wooden barrel, with a slit on either side for the catgut to play through, was a formidable weapon even in the hand of a boy. Never shall we forget the first wood-pigeon that fell by our hand.

It was late one brilliant August afternoon when we set out prepared for slaughter. The sorrel amongst the grass was just beginning to redden here and there, and the dewberries were already blackening the hedges above the pink leaves of the wild geranium and still brighter arum berries, as we crept down the shady side of the home-wood. A rabbit started up from the grass on the line of the old Preceptory wall where the Knights Templars had once flourished in all their splendour; but he did not hold a moment to take a second look at the advancing foe, and ran at once to earth on the bank-side without giving a fair chance for a shot. We climbed the fence and entered the lower side of the wood with as little noise as possible, but not before two young blackbirds had flown off with a startled cry sufficient to warn everything within hearing distance. Nothing abashed, we faced the north-wester which was rippling the leaves of the poplars and beeches into one uniform direction and hiding any sound we made. The sigh of the wind and the constant movement of the underwood was our only chance of approach with such a wily bird as the ringdove, which on a quiet day would notice a movement on the ground or the breaking of a twig at a hundred yards' distance. On we stole with the field-mice playing in and out of the grass and brambles, and the startled squirrels rushing up the trunks of the nearest trees to their leafy home. The pigeon's favourite rest was a sycamore which overtopped the rest of the wood by some feet. Plaintive cooing came from its upper branches, showing us our game was at hand, if we could only reach it unobserved. The moments flew, our hearts beat high; the sound ceased; we stopped on the

instant, fixed like a statue, leaning face downwards on the crossbow. It began again, and we moved on, till at last we glided under the outer branches of the sycamore itself. Now the real difficulty lay before us. How were we to find the position of the birds without exposing ourselves to the quick eyes hidden among the upper foliage?

Any one who has not tried to peer into the matted top of a large tree in full leaf unseen by a shy and wary bird, can have no idea of the difficulty of the undertaking. The form of a dove outlined against a varying thickness of green leaves lit up by sunlight is a most difficult thing to recognise even when in full view. Over and over again, when waiting for them under a tree in a pea-field, we have seen a bird alight at the end of a branch and disappear from view as it closed its wings. But when you do not know in what part of the tree the birds are, while a single false step will bring you into full view and flush the game, the difficulty is infinitely increased, and, as a general rule, becomes an almost impossible feat.

Luck favoured us in our first attempt of the kind, as it has never done since, excepting in the pairing season. After a little twisting of the body and steady gazing into the mass of leaves on the opposite side of the tree, a fine cock-bird discovered itself by cooing loudly to its mate. The branch trembled on which it sat, its sheeny neck and breast shone out in the sunlight, and the whole bird became visible excepting the head, which was hidden by a fluttering leaf. The gut of the bow had been strung before we entered the wood, and nothing was required but to slip a bolt into the wooden barrel and to raise it to the shoulder.

To hit a bird at ten yards swaying to and fro at the end of a branch with a modern breech-loader is no great feat; but to do the same with the single bolt of a crossbow requires the nicest art. Over and over again the bird was waved into the field of sight by the swaying branch, but pulse or nerve failed at the critical moment. At last in a hopeless flurry we pulled the trigger just before the wing-joint came into view. The twang of the released gut sent five unseen birds flying away from their afternoon siesta, and down with a plump—which sounds so sweet in the ears of a sportsman—came the lovely cock.

The clubhead—a light thin oak stick with a large clubbed root, made more heavy with lead—for throwing at rabbits or anything that practical ingenuity could steal upon, was another weapon of this same period. The idea was borrowed from a book of travels, but by whom and amongst what people we are unable to say at this distance of time. This was the age also of the three-brick trap, the horse-hair noose, and birdline; of ceaseless wandering by wood and stream, over meadow and fallow, rifling their varied treasure of skin and feathers, eggs and flower, in season and out of season, whenever we were permitted.

Then there was the fishing! What famous fun it was! We have been at it from light to dark, and have gone to bed too weary to eat, to rise to it again on the morrow as fresh as ever. Men may still keep to it in after-life, but for our part

we have given it up. Where is the sense of freedom and reckless happiness now with which we 'trawled' in the preserved drains under the nose of the watchers, or 'snickled' the twelve-pound pike under the old willow by the lake before the Hall windows in the early morning light? Gone, all gone; our plenteous waistcoats and slow gait forbid any idea of the kind.

Surely it was not right that the ponds of one lordship should be overstocked with fish, and in the next—ours, of course—the old clay-pits quite empty? Especially, too, when the Squire, 'like a canny man,' as the Scotch gardener said, was not over-particular in asking questions.

The fresh-water mussels in the home fishpond at the Hall had a great attraction for us, though the pearls we found were of the very smallest size and never free in the shell. It was so ridiculously full of them, that 'the old gentleman' himself could not have cooled his soles for a moment without having a pendant to every toe. Three boys were always told off on the occasion of a visit to watch the gate and doors of the old walled garden, to whistle a warning in case of need; while another followed the deaf old gardener—who was so near-sighted that he several times fell over his own basket, and once into the pond itself—and all was well. We crept noiselessly out of the rhododendron bushes, and were soon flat on the grass by the pond, peering into the mud through two feet of crystal water. There the bivalves rested in an upright position from a foot to eighteen inches apart as far as the eye could see, with just the tips of their open shells, fringed with delicate tendrils, peeping out of the mud. Our mode of taking them was simplicity itself: we inserted a piece of fine iron wire into their open ends, which caused them to close with so tenacious a grip that we could draw them slowly from their resting-places and jerk them into the expectant basket. Twenty minutes would suffice to collect over a stone-weight, when a start was made for the clay-pits, but with proper precautions, for our burden would have betrayed us, till we were well off the Master's place.

The great pool by the side of the Gothic bridge that had once spanned the beck was another favourite spot. We have sat motionless, fishing for hours from the broken central pier, under the shade of the great ash, whose sweeping bough had carried us over the eleven feet of eddying water. It was here we found the seventeen perch sailing round and round in the back-water of the hole in the afternoon light.

'Gently now, Mat. Give me the whip, and a six-foot gimp with an unbaited four-pronged hook'—our language was more expressive than piscatory, and savoured of the farmyard more than the stream.

You call it poaching, murder, to take them all, and without a rod too, Mr Would-be Walton? Well, just try to draw seventeen perch out of a hole one by one without frightening the rest by any other means. It is not so easy as it looks to one who knows nothing about the art of tickling fish; and we were hungry village boys, and fish is very good, either cooked fresh from the water or cold with salt and vinegar—especially if you have caught it yourself.

As we grew older and more adept at woodcraft

the range of our sport extended. Baited night-lines set in reedy shallows will catch water-hens and wild-duck as well as eels, and properly concealed spring-traps hold the proudest of England's common wild-fowl, the gray goose. All depends on the skill of the trapper, with local knowledge of the ground and the habits of the bird. This and every other information was to be had at second-hand to begin with on a promise of secrecy from an old hand who knew 'ought that could be learned about ratting;' the ostensible reason for his always being in our company when not less reputably employed. He taught us the use of the trammel and gate-net; and showed by an illustrative example how to take a hare in any field with a snare and a terrier dog.

'You fine gentlemen an' farmers' sons may go where you like, tramocking after nests and bits o' weeds with your fine picture-books o' bods and fleurs, and nabody s'pects you o' onything; while the likes o' me can't walk doon the lane wi' my hands in my pockets, or one of them keepers is after me, frit out o' his mind aboot summats. As if an honest man didn't know on which leg he halts hissen.'

The keepers did 's'pect' more than they openly acknowledged; but they had private and very good reasons for not seeing what was under their eyes sometimes, as the poacher more than hinted in this gnomic reference to halting.

This ne'er-do-well was a true son of the sod; as cunning as a fox and shy as a woodcock, his hand against every man, and every man's against him excepting in bargain or carouse. He lived on five acres of freehold in the next parish, and never worked off his own land excepting as a mole and rat catcher. It was only after repeated efforts that we gained his confidence and sympathy and learned the full extent of his accomplishments; for he had communed with Nature till he knew her by heart. The woods and commons, sluggish streams, and snipe-covered bogs were his books, and he had not pored over them long nights and days for nothing. Every sound and hum was a living language to his watchful ears, every motion and colour a true indication to his marvellous eye. The chatter of the magpies a little before dawn told him that Mr Velvets had entered the wood close by, though that worthy could not understand, when the dog found his lair later on, how the poacher got wind and stole away unseen. When we followed the hare across the new-fallen snow on the common, he told us beforehand she would bolt from the furze-bush by her changed 'loupings;' though from that day to this we have never been able to predict the same event under similar circumstances. The cry and action and trail of every bird and beast were known to him; sometimes the eyes, sometimes the ear received the required sign, from which the well-stored mind drew a rapid and always accurate conclusion. We do not wish to make a hero of this poacher; but give him his due, he was a man and a brother, and a remarkably clever man too.

Happy times those old Lincolnshire days were, even when the unlicked whelp appeared in all its pristine vigour, as the following anecdote will show. Mat's father was a farmer, and a local preacher for the Wesleys, though he attended

church when the chapel was closed. He was as upright a man and good-natured a soul as ever stepped. In his earnest desire to do good to his fellow-creatures he had started a prayer-meeting, which was held every Wednesday afternoon in his 'best room,' and followed afterwards by an old-fashioned tea, for 'times were good and things went merrily' in the days we speak of.

On one of these meeting-days three of us ensconced ourselves, for the purpose of watching the company arrive, in a hole we had made early the previous morning on the top of a straw stack, which had been set close to the end of the house, to make room for the incoming crops. The 'meetingers' had hardly assembled when Mat burst into a fit of smothered laughter, and without saying a word, bade us follow him as quickly as we could. Guessing there was something in the wind, we were only too happy. We slid down from the stack and took a 'mouch' round. All was quiet; the men were in the harvest-field, the mistress and maids in the prayer-meeting. By dint of no little exertion we carried a twenty-foot ladder to the top of the stack, from which it was an easy matter to reach the top of the house. By the aid of a little barley from the hay-house, Mat was soon mounting the roof with his mother's largest gray gosling under his arm. He had made an attempt to catch the old gander; but he had proved too powerful and refractory at close-quarters. To drop the short ladder from the stack and carry it back to the spot we had taken it from and to return to our snug hiding-place was the work of a couple of minutes. Mat waited patiently by the gutter till all was ready below, and then slowly climbed on hand and knees to the ridge of the roof; an effort of the most fool-hardy danger, considering how he was burdened. Standing on tiptoe and holding on by an ornamental groin of bricks, he deliberately dropped the gosling, tail foremost, down the old-fashioned open chimney of the drawing-room, the poor bird giving a frantic cry as he let go of its bill. Waiting a moment to listen, he ran down the tiles, landed on the stack with a bold spring, and buried himself beside us in the straw.

What took place within the room we did not learn till late the same evening, *when we came home from fishing*. Mary, the voluble dairy-maid, told us with much laughter that her master had just reached his long-winded petition against the devil—a notable personage in the prayers of our younger days—when an awful black 'summats,' whose identity no one doubted for the moment, with half a ton of soot, came down the chimney and began 'to flusker aboot.'

What we did hear from our hiding-place were appalling shrieks from frightened women; while a moment after there was a stampedé 'skyannock,' helter-skelter, of the much besooted congregants through the open French windows, followed by the black cause of all their fear with outstretched neck 'skirling awful.' The poor bird was pursued in turn by the worthy minister, Bible in hand, with objurgations loud and strong.

There was no more prayer-meeting that afternoon; and if the good man, who came into the yard a few minutes after to cool his heated mind, had suspected or discovered our hiding-place, our

skins would have paid dearly for the pleasure we had enjoyed.

Another escapade, in which we did not get off quite so easily, was pelting the bargees, as they passed up and down the river, with the small potatoes which were often to be found lying about the landing-stage. Over and over again, in language more expressive than polite, we were warned at the risk of our skin to desist. But as long as potatoes were plentiful and the boatmen a fair mark, the temptation was too strong to be resisted, especially as there seemed so little risk of retaliation. A day came at last, however, when one of the long-suffering objects of our attention stole a march on us by landing in his boat at a point round the bend of the river and stealing up behind us under cover of the bank while we were busily employed with his mate. He had provided himself with an ash sapling, or, as he called it, 'an esh-plant,' which he used with such promptitude and vigour on legs and sides and backs that sitting or lying was no work of supererogation for a week to come. The man in the barge joined his friend as soon as he could, and took 'a topping-up turn' with each boy when the other had done, and finally half drowned us by holding us down in the river 'to cool the welt fever' which was fast coming to a head. With a potato stuffed into mouths and well plastered into its place with warp or river mud, they left us in a sorrier plight than we had ever been before, but perfectly cured of our mania for cockshying with potatoes.

But why should we scribble away in our garrulous old age about the happy half-forgotten past, when it is the eternal 'now' of the present which demands the attention of old and young alike? Only because the little book we picked up the other day by our fellow county-woman has brought back the past with its timeworn dialect and quaint tales so clearly as to induce a fit of scribbling mania. Men dwell with the longest and greatest pleasure on whatever tickles their fancy and vanity most; and both fancy and vanity were tickled by being asked to criticise a thought and language once as familiar as the cold boiled bacon and small-beer of a Lincolnshire farmhouse.

A PREDICTED REVOLUTION IN GUNNERY.

A GUN which dispenses with gunpowder or other explosive, and which therefore can no longer be correctly described as a firearm, is certainly a somewhat startling novelty in lethal weapons. Such a gun has recently been invented, and put to experimental trial; and the results of these experiments have induced its friends to believe that it represents the small-arm of the future. How far they are justified in these anticipations we shall presently see.

The inventor of the 'Gas Gun,' as it is called, is M. Paul Giffard, who bears a name which has already won confidence among mechanical engineers because of his brother's well-known invention of the Steam-injector, a device by which a boiler under pressure can be supplied with water without the aid of a pump.

In outward appearance the gun does not seem to differ from the usual type of rifle or fowling-piece, as the case may be—for the new principle can be applied to either weapon—except that just beneath the barrel, and forming apparently a part of the stock, there is a metallic cylinder about nine inches long, and about double the diameter of the barrel itself. In this cylinder is contained the motive-power, or ballistic force which is utilised in lieu of ordinary gunpowder, for sending the bullet or charge of shot on its deadly mission. This propulsive power is provided by gas; but this gas, instead of being generated by the combustion of powder, is obtained for every discharge by the release from pressure of a drop of liquid which immediately assumes the gaseous form. This liquid is contained in the cylindrical vessel below the barrel of the gun which has been already mentioned. A pull on the trigger of the weapon causes a hammer to fall, as in the case of old-fashioned muskets; but the blow, instead of acting upon a percussion cap, opens a valve in the cylinder, whereupon a drop of liquid escapes into the barrel above, expands into gas and drives the bullet out, which by a previous operation has been placed in position.

There is no mystery whatever about the liquid which is employed in this novel form of gun. It is simply liquefied carbon dioxide, or, to give it its more common names of choke-damp, or carbonic acid gas. For it is met with all over the world of nature as a gas. It is always found when carbon is burnt in excess of oxygen or air; it occurs free in the air and in many mineral springs, and forms the food of plants, from which they derive their woody structure. It is also found in the craters and fissures of volcanoes, at the bottom of old wells, and in beer-vats. It occurs as the deadly choke-damp known to miners, and has killed many because of its irrespirable nature. Should the fond anticipations of the promoters of the Gas Gun prove to be founded on correct data, the deadly vapour will now commence a new era of destructiveness in another way. It is strange that any one should be found applying the same force which gives effervescence to ginger beer and similar harmless fluids to the destruction of life.

The Gas Gun depends for its efficiency upon the circumstance that carbon dioxide can, like other gases, and far more easily than some, be reduced by pressure to the liquid state. That is to say, supposing that we have an amount of the gas at our disposal—it is easily prepared by adding acid to lime in the form of chalk or marble—a powerful pump and a strong metal receptacle, we can by pumping the gas into that receiver gradually cause the gas to assume the liquid form. The change will begin when the amount of gas compressed amounts to thirty-six times the volume of the receiver. Every stroke of the pump after this has been arrived

at produces fresh condensation, until the receiving vessel is full of liquid. The gas will then be described as being under a pressure of thirty-six atmospheres; and as one atmosphere may be said to represent a pressure of fifteen pounds on the square inch, it follows that the entire pressure exerted by the liquefied gas against the walls of its containing vessel is this amount multiplied thirty-six times, or an aggregate pressure of over five hundred pounds on the square inch.

Those accustomed to steam-pressures may be apt to be misled by these figures, and may look upon a pressure of five hundred pounds as something uncontrollable, for they will reckon that it is about four times the pressure at which a locomotive boiler is commonly worked. They will also be apt to imagine that there must be great difficulty in obtaining a receptacle strong enough to bear such a strain. But they here lose sight of the circumstance that a gas-container is not like a steam-boiler, subjected to fervent heat, and the wear and tear which that constant heat brings with it. A small cylinder of good mild steel not more than a quarter of an inch in thickness will bear a gas-pressure of between two and three thousand pounds on the square inch; and hydrogen, oxygen, and nitrogen are now supplied commercially in such vessels, the pressure being, when such cylinders leave the works, one hundred and twenty atmospheres, or eighteen hundred pounds on the square inch. So that it will be seen that there is no question of danger in using a cylinder which is only charged to five hundred pounds pressure.

We may now come to the advantages claimed for the new weapon. In the first place, it will discharge five hundred shots consecutively at an estimated cost of less than one penny for gas. It makes no report beyond that which is heard when an air-gun is discharged. It does not recoil—or 'kick,' as the common term is—and there is no fouling of the barrel. The absence of report is to our minds a rather doubtful advantage, but one which will be certainly appreciated by the burglar, poacher, and other predatory characters who commonly carry firearms; but the other advantages claimed are certainly valuable ones.

But surely such an advantage cannot be fairly claimed without at once admitting that the weapon is wanting in power. For the noise made by the discharge of a firearm is to some extent a measure of its carrying power, the noise being occasioned by the more or less displacement of the air by the outrush of gas. The absence of recoil may also give rise to a suspicion of want of power, for it is an established law that action and reaction are equal and opposite. If the bullet is projected in one direction, the gun from which it is fired must of necessity move in the opposite direction, and it is only because the weight of the weapon is so much greater than the bullet that the 'kick' is not more apparent than it commonly is. The other advantage claimed would have been a valuable consideration in the days when gunpowder was of the very dirty kind; but the new nitro-compound smokeless powder does not foul the barrels in which it is used any more than carbonic acid would.

Clever as the invention undoubtedly is, we are constrained to believe that it can never represent a serious rival to gunpowder. It is noteworthy that when the Gas Gun was lately tried in London, the apparatus was adapted to small saloon rifles only. The range was only about twenty yards, and the muzzle velocity of the weapon, instead of being indicated by recognised instruments which are made for that purpose, was gauged by the flattening of the bullet on the target. For such weapons, which are mere toys, and for sporting-guns, the gas system may possibly prove to be effective; and if so, the sportsman will greatly value a weapon which will enable him to bring down a bird without frightening away all the other game within earshot. But it is quite clear that the force employed can never be made to do the same work in a rifle barrel which is accomplished by gunpowder. The latter at the moment of combustion exercises a force which we all know to be irresistible, and all this power is required to carry the bullet to the extreme ranges now demanded. It would be easy to prove by figures that the pressure exerted by gunpowder is more than seventy times that obtainable from the liberation of liquefied carbon dioxide. But the inability of the new method to compete with the old can be more readily shown by pointing out that in the former the ballistic power sufficient for hundreds of discharges is easily held in check by a thin steel cylinder. A single charge of gunpowder exploded in such a receptacle would shatter it to pieces, and would at once demonstrate that the old-fashioned explosive need not fear being superseded by liquefied carbonic acid.

TO THOSE WHO FAIL.

Courage, brave heart; nor in thy purpose falter;
Go on, and win the fight at any cost.
Though sick and weary after heavy conflict,
Rejoice to know the battle is not lost.

The field is open still to those brave spirits
Who nobly struggle till the strife is done,
Through sun and storm with courage all undaunted,
Working and waiting till the battle's won.

The fairest pearls are found in deepest waters,
The brightest jewels in the darkest mine;
And through the very blackest hour of midnight
The star of Hope doth ever brightly shine.

Press on! Press on! the path is steep and rugged,
And storm-clouds almost hide Hope's light from view;
But you can pass where other feet have trodden:
A few more steps may bring you safely through.

The battle o'er, a victor crowned with honours;
By patient toil, each difficulty past,
You then may see these days of bitter failure
But spurred you on to greater deeds at last.

NELLIE BARLOW.

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